

ABSTRACT

A water heater including a tank having a wall defining an interior for holding water is provided. A heat exchange assembly is positioned at least partially within the interior of the tank. The heat exchange assembly includes a metallic outer tube positioned within the interior of the tank. The outer tube has a wall with an inner surface and end portions positioned within the interior of the tank. The heat exchange assembly further includes a metallic inner tube extending within the outer tube and having end portions extending through the wall of the tank. The inner tube has a wall with an outer surface. A portion of the outer surface of the inner tube contacts a portion of the inner surface of the outer tube, thereby facilitating the transfer of heat between the inner tube and the outer tube. An elongated passageway is defined between a portion of the outer surface of the inner tube and a portion of the inner surface of the outer tube, thereby facilitating the flow of fluid along a length of the outer tube and the inner tube.